at least the forward direction of their respective tow about a common guide wheel axis offset from and extending substantially perpendicular to the forward direction of travel of the tows.

22. The tow catch of claim **21**, wherein, the common guide wheel axis is adjustably positionable with respect to the pivot point.

23. A fiber placement head, comprising, a tow catch operatively attached thereto, the tow catch comprising:

an arm, adapted for pivotable motion about a pivot point and terminating in a distal end of the arm;

a roller rotatably attached to the distal end of the arm and positioned for resting against a tow on an output side of a support;

whereby motion of the tow in a reverse direction urges the arm to pivot in the reverse direction in such a manner that the roller clamps the tow between the roller and the support, and motion of the tow in the forward direction causes the arm to pivot in the forward direction in such a manner that the roller does not clamp the tow against the support.

24. The fiber placement head of claim **23**, wherein, the tow catch is configured for selectively clamping the tow against the support in a manner allowing one-way motion of the tow in the forward direction from an input side to an output side of the support and precluding motion of the tow in a reverse direction from the output side to the input side of the support.

25. A fiber placement machine, comprising a tow catch operatively attached thereto, the tow catch comprising:

an arm, adapted for pivotable motion about a pivot point and terminating in a distal end of the arm;

a roller, rotatably attached to the arm with a one-way clutch, and having an outer periphery thereof defining the distal end of the arm and adapted for contact with a tow the roller being adapted for resting against the tow on an output side of a support.

26. The fiber placement machine of claim **25**, wherein, the tow catch is configured for selectively clamping a fiber tow against a support in a manner allowing one-way motion of the tow in a forward direction from an input side to an output side of the support and precluding motion of the tow in a reverse direction from the output side to the input side of the support.

27. A tow catch, for selectively clamping a fiber tow against a support in a manner allowing one-way motion of the tow in a forward direction from an input side to an output side of the support and precluding motion of the tow in a reverse direction from the output side to the input side of the support, the tow catch comprising:

an arm, adapted for pivotable motion about a pivot point disposed at a minimum distance from the support, and terminating in a distal end of the arm disposed at a distance greater than the minimum distance from the support;

the distal end of the arm being adapted for resting against the tow on the output side of the support;

a roller, rotatably attached to the arm with a one-way clutch, and having an outer periphery thereof defining the distal end of the arm and adapted for contact with the tow;

the one-way clutch being configured and oriented to allow rotation of the roller by the tow when the tow is urged toward the forward direction, and to not allow rotation of the roller by the tow when the tow is urged toward the reverse direction; and

whereby motion of the tow in the reverse direction urges the arm to pivot in the reverse direction in such a manner that the distal end of the arm clamps the tow between the distal end of the arm and the support, and motion of the tow in the forward direction causes the arm to pivot in the forward direction in such a manner that the distal end of the arm does not clamp the tow against the support.

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